

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL AND ENHANCEMENT GROUP

DRAFT ENVIRONMENTAL ASSESSMENT

AND

SECTION 4(f) EVALUATION

for

I-17 WIDENING DESIGN CONCEPT STUDY

SR 101L Interchange to New River
Project No. 017-A(874)
TRACS No. 017 MA 215 H5162 01L
Phoenix District – Maricopa County

October 2003

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205 South 17th Avenue
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August 2003

Approved by: Dee Bowling Date: Aug 12, 2003

for Richard M. Duarte, Manager
Environmental and Enhancement Group
Arizona Department of Transportation

Approved by: David S. Nelson Date: Oct 7, 2003

for Robert E. Hollis
Division Administrator
Federal Highway Administration

This Draft Environmental Assessment has been prepared in accordance with the provisions and requirements of Title 23, Code of Federal Regulations, Part 771, relating to the implementation of the National Environmental Policy Act of 1969 (42 U.S. Code 4332(2)(c)).



MITIGATION MEASURES

Mitigation measures have been defined to avoid or minimize the environmental impacts of the preferred alternative. These mitigation measures are not subject to change without prior written approval from the Federal Highway Administration.

Design Responsibilities

- During final design, the project plans would be reviewed to verify the extent of encroachment into waters of the United States, and permits required under Sections 401 and 404 of the Clean Water Act would be acquired by the Arizona Department of Transportation (page 28).
- Because one or more acres of land would be disturbed, an Arizona Pollutant Discharge Elimination System permit would be required. The Arizona Department of Transportation Roadside Development Section would determine who would prepare the Storm Water Pollution Prevention Plan (page 29).
- During final design, the Arizona Department of Transportation would prepare a revegetation plan. This plan would include salvaging and transplanting saguaros in the area of disturbance (page 31).
- Protected native plants within the construction limits would be impacted by the preferred alternative; therefore, the Arizona Department of Transportation Roadside Development Section would notify the Arizona Department of Agriculture at least 60 days prior to the start of construction to afford commercial salvagers the opportunity to remove and salvage any plants not included in the project's revegetation plan (page 32).
- During final design, individual construction segments of the project area would be surveyed by the Arizona Department of Transportation's Natural Resources Section to determine if invasive species were present within the segment. If invasive species were found within a given construction segment, these species would be treated prior to construction and any necessary treatments would continue following construction completion (page 32).
- All disturbed soils that would not be landscaped or otherwise permanently stabilized by construction would be seeded using species native to the project vicinity (page 32).
- Retaining walls and noise barriers would be constructed of materials that complement the surrounding landscape's colors and textures. In addition, retaining walls associated with any rock cuts would be compatible with the rugged textures, colors, and lines of the surroundings and with those of the new median retaining walls (page 34).
- The dual New River bridges would be painted to blend with the desert wash nature of their surroundings (page 34).
- Wherever adequate space is available, landscaping would be provided along I-17 in order to minimize visual impacts (page 34).
- Initial Site Assessments would be obtained during final design if right-of-way is required from, or excavation is anticipated on or adjacent to, the properties identified with potential



hazardous material contamination. If necessary, remedial measures would be implemented based upon the Initial Site Assessment results (page 40).

- The project would be designed to avoid impacts to cultural resources sites within the project area to the extent possible. If these sites cannot be avoided, a program of testing and/or data recovery would be implemented during final design to mitigate the impact of project construction on cultural resources sites (page 42).

Phoenix Construction District Responsibilities

- In accordance with Arizona Pollutant Discharge Elimination System requirements, the Phoenix Construction District would submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 29).
- The Phoenix Construction District would provide a construction notice to adjacent residents and businesses at least two weeks prior to construction (page 48).

Contractor Responsibilities

- All discarded waste (including but not limited to human waste, trash, debris, oil drums, fuel, ashes, equipment, concrete, and chemicals) generated during construction activities would be removed and/or disposed according to federal and state regulations (page 29).
- In accordance with Arizona Pollutant Discharge Elimination System requirements, the contractor would submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 29).
- If Sonoran desert tortoises were encountered during construction, personnel would comply with the Arizona Game and Fish Department's Guidelines for Handling Sonoran Desert Tortoises found in Appendix C (page 31).
- All disturbed soils that would not be landscaped or otherwise permanently stabilized by construction would be seeded using species native to the project vicinity (page 32).
- All earth-moving and hauling equipment would be washed at the contractor's storage facility prior to arriving on site to prevent the introduction of invasive species seed (page 32).
- If invasive species were found within a given construction segment, the contractor would be required to wash all earth-moving and hauling equipment prior to leaving the construction site in order to prevent the spread of invasive species seed to uncontaminated areas. The contractor would notify the Arizona Department of Transportation Natural Resources Section of the location of any proposed wash sites prior to their operation (page 32).
- Construction of the project would comply with *Maricopa County Air Quality Rule 310 – Fugitive Dust Sources* and any required air quality permits (page 36).



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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AADT	Average annual daily traffic
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
APS	Arizona Public Service
ASLD	Arizona State Land Department
AT&T	American Telephone and Telegraph
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CAP	Central Arizona Project
CBC	Concrete box culvert
CFPO	Cactus ferruginous pygmy-owl
CFR	Code of Federal Regulations
CMP	Corrugated metal pipe
CO	Carbon monoxide
COE	U.S. Army Corps of Engineers
dBA	Decibels (A-weighted)
DEA	Draft Environmental Assessment
EPA	Environmental Protection Agency
FCDMC	Flood Control District of Maricopa County
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ft	Foot/feet
FY	Fiscal Year
HOV	High occupancy vehicle
I-10	Interstate 10
I-17	Interstate 17
I-40	Interstate 40
ICO	Issues, concerns, and opportunities
ISA	Initial Site Assessment
KB	Kaufman Broad
L_{\max}	Maximum noise level
LOS	Level of Service
L RTP	Long Range Transportation Plan
LUST	Leaking underground storage tank
MAG	Maricopa Association of Governments
MCDOT	Maricopa County Department of Transportation
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
MP	Milepost
mph	Miles per hour
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAP	Noise Abatement Policy
NO_2	Nitrogen dioxide



NRHP	National Register of Historic Places
O ₃	Ozone
PA	Programmatic Agreement
Pb	Lead
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
PM ₁₀	Particulate matter between 2.5 and 10 microns in diameter
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
RV	Recreational vehicle
R/W	Right-of-way
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SR	State Route
TI	Traffic Interchange
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
USAA	United Services Automobile Association
USFWS	U.S. Fish and Wildlife Service
UST	Underground storage tank



I. INTRODUCTION

In December 1998, the Arizona Department of Transportation (ADOT) completed a profile study for the Phoenix-Flagstaff-Page Corridor (ADOT 1998). The purpose of the study was to identify the conditions, uses, and future surface transportation needs along Interstate 17 (I-17) and US 89. Specific recommendations were made regarding increased capacity on I-17 between Interstate 10 (I-10) in Phoenix and Interstate 40 (I-40) in Flagstaff. The study report also included a recommended implementation plan for the widening of I-17 over the next 20 years.

ADOT and the Federal Highway Administration (FHWA) are currently proposing improvements to I-17 from south of the State Route (SR) 101L Traffic Interchange (TI) at milepost (MP) 214.5 in north Phoenix to the New River Road TI (MP 232.0). A Design Concept Study was initiated by ADOT in October 1999 to identify, evaluate, and recommend proposed I-17 improvements to meet the capacity, operational, and safety needs of the traveling public.

The proposed improvements would be achieved by the phased design and construction of additional general purpose and high occupancy vehicle (HOV) lanes within the study area. It is anticipated that the improvements would be phased to meet travel demand within available funding limits over the next five to 10 years, with an interim widening to three travel lanes and an HOV lane in each direction. The full build-out of the project would ultimately provide five travel lanes and an HOV lane in each direction between SR 101L and Carefree Highway and four travel lanes and an HOV lane in each direction between Carefree Highway and New River Road.

This Draft Environmental Assessment (DEA) has been prepared, concurrent with the preparation of an Initial Design Concept Report (ADOT 2003b), to document the development of feasible alternatives for improving I-17 from the SR 101L TI to New River Road. This DEA assesses the potential social, economic, and environmental impacts associated with the preferred alternative. In addition, this document summarizes the alternatives development process, explains the rationale for eliminating specific alternatives, recommends a preferred alternative, and summarizes the public participation process.

